

Lockwood Valley Groundwater Basin

- Groundwater Basin Number: 3-6
- County: Monterey
- Surface Area: 59,900 acres (94 square miles)

Basin Boundaries and Hydrology

Lockwood Valley Ground Water Basin is comprised of a northwesterly trending valley in the Coast Range Mountains of Monterey County west of the Salinas Valley. The basin extends from Lake San Antonio in the southeast to the Camp Hunter Liggett gate in the northwest. About the western one half of the basin is within the Hunter Liggett Military Reservation and is used as an artillery firing range. The elevation ranges from 800 to 1,200 feet. Along the San Antonio River the geologic materials are mapped as Quaternary alluvium. Beyond the river floodplain the geologic units are Quaternary nonmarine terrace deposits and Plio-Pleistocene nonmarine units. The basin is bounded on all sides by Middle Miocene marine rocks (Jenkins 1958). The San Antonio and Jolon Faults are mapped within the basin but it is undetermined if they affect groundwater flow. The basin boundary confidence is considered high, due to clear geologic contacts. The San Antonio River and its tributaries drain the basin. Average precipitation ranges from 15 to 23 inches, increasing northward.

Hydrogeologic Information

Water Bearing Formations

The primary water bearing formations are unconsolidated alluvium along the San Antonio River and Quaternary terrace deposits from the river floodplain to the basin boundary (Bader, 1967). San Joaquin District well completion report files contain logs for 223 wells in the basin. All of the wells are shown to be completed in unconsolidated units.

Restrictive Structures

The basin is largely unconfined but some confinement is noted by Bader (1967). There is no evidence to show that faults affect the movement of groundwater within the basin.

Recharge Areas

The primary area of groundwater recharge is from the San Antonio River and the basin margins.

Groundwater Level Trends

No groundwater level hydrographs were available. Information in the Monterey County General Plan (South County Area Plan 1987), indicate that water levels fluctuate between about 9 to 12 feet to water. San Joaquin District well completion report files show depth to water ranging from about 10 feet up to 150 feet at the time the wells were drilled.

Groundwater Storage

Bulletin 118-75 lists the storage capacity on the order of 1,000,000 acre feet (DWR 1975).

Groundwater Budget (Type C)

There is no information to provide an estimate of this basin's budget.

Groundwater Quality

The primary water type in the basin is bicarbonate type with calcium and magnesium cations (DWR 1967). The Monterey County General Plan (1987) describes the water in the area as being both good and plentiful, although there is hard water. The water is not contaminated by nitrates or tainted by sulfur.

Water Quality in Public Supply Wells

Constituent Group ¹	Number of wells sampled ²	Number of wells with a concentration above an MCL ³
Inorganics – Primary	5	0
Radiological	4	0
Nitrates	5	0
Pesticides	5	0
VOCs and SOCs	5	0
Inorganics – Secondary	5	0

¹ A description of each member in the constituent groups and a generalized discussion of the relevance of these groups are included in *California's Groundwater – Bulletin 118* by DWR (2003).

² Represents distinct number of wells sampled as required under DHS Title 22 program from 1994 through 2000.

³ Each well reported with a concentration above an MCL was confirmed with a second detection above an MCL. This information is intended as an indicator of the types of activities that cause contamination in a given basin. It represents the water quality at the sample location. It does not indicate the water quality delivered to the consumer. More detailed drinking water quality information can be obtained from the local water purveyor and its annual Consumer Confidence Report.

Well Characteristics

	Well yields (gal/min)	
Municipal/Irrigation	Range: 2– 1500	Average: 100 (DWR well completion reports)
	Total depths (ft)	
Domestic	Range: 30	Average:
Municipal/Irrigation	Range: - 1000	Average: 270 (DWR well completion reports)

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
Department of Health Services and cooperators	Groundwater levels	0
	Miscellaneous water quality	0
	Title 22 water quality	9

Basin Management

Groundwater management:	None
Water agencies	
Public	None
Private	None

References Cited

Bader, J.S. 1969. Ground-Water Data as of 1967 Central Coast Subregion, California. USGS Open-File Report.

California Department of Water Resources (DWR), San Joaquin District. Well completion report files.

_____. 1967. Monterey County Water Quality Investigation.

_____. 1975. California's Ground Water. Bulletin 118.

Jenkins, Olaf P. (compiler). 1958. San Luis Obispo Sheet of Geologic Map of California. California Division of Mines and Geology (CDMG). Scale 1:250,000.

Monterey County. 1987. South County Area Plan.

Errata

Changes made to the basin description will be noted here.